

**Notice of Allowability**

Application No.

09/492,044

Examiner

Joon H. Hwang

Applicant(s)

OKAYASU ET AL.

Art Unit

2166

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to a telephone interview with Thomas F. Presson (Reg. No. 41,442) on 3/27/07.
2. ☒ The allowed claim(s) is/are 1,3-5 and 7-10.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |  |   |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)   | 5. <input type="checkbox"/> Notice of Informal Patent Application                     |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),<br>Paper No./Mail Date _____    | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|  | 9. <input type="checkbox"/> Other _____   |

### **DETAILED ACTION**

1. The applicants amended claims 1 and 5 in the amendment filed on 1/30/07.  
The claims 1, 3-5, and 7-10 are pending.

### **EXAMINER'S AMENDMENT**

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
3. Authorization for this examiner's amendment was given in a telephone interview with Thomas F. Presson (Reg. No. 41,442) on 3/27/07.
4. The application has been amended as follows:

Rewrite claim 1 as follows:

"1. A free storage space management apparatus in a broadcasting apparatus, comprising:

recording means for recording information which includes information relating to free storage space of the recording means; and

control means for recording information in the recording means and for acquiring the information relating to the free storage space of the recording means,

wherein the control means selects the recording means by generating a list in which the recording means are arranged in decreasing order of free storage space,

Art Unit: 2166

comparing a storage space consumption amount to free storage space values of all the recording means, and determining whether there exists a recording means having an unused port,

wherein said control means selects the recording means having an unused port with the most free storage space greater than the storage space consumption amount,

wherein the control means generates a stream with a unique identifier upon successfully securing a recording area in the selected recording means having an unused port, and

wherein said stream is discarded upon release of said most free storage space and said unique identifier is not used again.”.

Rewrite claim 5 as follows:

“5. A free storage space management method in a broadcasting apparatus, comprising the steps of:

acquiring information relating to free storage space of recording means;

generating a list in which the recording means are arranged in decreasing order of free storage space;

comparing a storage space consumption amount to free storage space values of each of the recording means;

determining whether there exists a recording means having an unused port;

selecting the recording means having an unused port with the most free storage space greater than the storage space consumption amount;

Art Unit: 2166

generating a stream with a unique identifier upon successfully securing a recording area in the selected recording means; and

discarding said stream upon release of said most free storage space, wherein said unique identifier is not used again.”.

***Allowable Subject Matter***

5. Claims 1, 3-5, and 7-10 are allowed.

Claims 1 and 5 identify the distinct features, “selecting the recording means having an unused port with the most free storage space greater than the storage space consumption amount, generating a stream with a unique identifier upon successfully securing a recording area in the selected recording means having an unused port, and discarding said stream upon release of said most free storage space, wherein said unique identifier is not used again”, which are not taught or suggested by the prior art of records. The closest prior art, Fijita et al. (U.S. Patent No. 5,841,740) disclosing a free space management in recording and reproducing system, fails to suggest the claimed limitations as mentioned above in combination with other claimed elements. The above features in conjunction with all other limitations of the dependent and independent claims 1, 3-5, and 7-10 are hereby allowed.

Art Unit: 2166

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joon H. Hwang whose telephone number is 571-272-4036. The examiner can normally be reached on 9:30-6:00(M~F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain T. Alam can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Joon Hwang  
Patent Examiner  
Technology Center 2100

3/27/07